CLAIMS

1.   A method of fabricating an optical fiber by drawing
a preform, the method including:
- determining variations in the characteristics of
     the preform departing from its design
     characteristics, and
- modifying the diameter of the fiber during drawing
     as a function of said variations.

2.   The method of claim 1, characterized in that the
diameter of the fiber is modified to compensate the
effect of said variations on the propagation
characteristics of the fiber.

3.   The method of claim 1 or claim 2, characterized in
that the preform has a constant outside diameter and the
determination step includes measuring the diameter of the
core of the preform.

4.   The method of claim 3, characterized in that the
diameter of the fiber is modified so that the relative
variation in said diameter is in the opposite direction
to the relative variation in the diameter of the core of
the preform.

5.   The method of any one of claims 1 to 4,
characterized in that said characteristics are
geometrical characteristics such as the diameter of the
preform, the radii of the layers of the preform or the
diameter of the core of the preform.

6.   The method of any one of claims 1 to 5,
characterized in that said characteristics are optical
characteristics such as the indices of the various layers
of the preform.

7.   The method of any one of claims 1 to 6,

characterized in that the modifications to the diameter of the fiber are less than a predetermined limit value.

8.   The method of claim 7, characterized in that the modifications to the diameter of the fiber are less than 2 μm.

9.   The method of any one of claims 1 to 6, characterized in that the modifications to the diameter of the fiber are less than ±2% of the nominal diameter of the fiber.

10.   An optical fiber obtained by the method of any one of claims 1 to 9.